

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-33 (canceled)
34. (new) A method of enucleating a cell comprising:
visualizing internal structure of a cell utilizing a two-photon laser scanning microscope and ablating a nucleus, thereby enucleating a cell.
35. (new) The method of claim 34 wherein the nucleus is ablated by light energy.
36. (new) The method of claim 34 wherein the nucleus is ablated by laser light.
37. (new) The method of claim 34 wherein the nucleus is ablated by near-infrared light.
38. (new) The method of claim 37 wherein the near-infrared light has a wavelength in a range of about 700nm to about 1000nm.
39. (new) The method of claim 34 wherein the two-photon laser scanning microscope provides light energy to ablate the nucleus.
40. (new) The method of claim 39 wherein the light energy is near-infrared light.
41. (new) The method of claim 40 wherein the near-infrared light has a wavelength in a range of about 700nm to about 1000nm.
42. (new) The method of claim 34 wherein the nucleus is ablated mechanically.
43. (new) The method of claim 34 wherein the cell is an avian cell.

44. (new) The method of claim 34 wherein an oocyte comprises the cell.
45. (new) The method of claim 34 wherein an ovum comprises the cell.
46. (new) The method of claim 34 wherein a zygote comprises the cell.
47. (new) The method of claim 34 wherein a blastoderm comprises the cell.
48. (new) A method of enucleating a cell comprising:
visualizing internal structure of a cell utilizing a two-photon laser scanning microscope and ablating a nucleus utilizing light energy provided by the microscope, thereby enucleating a cell.
49. (new) The method of claim 48 wherein the nucleus is ablated by laser light.
50. (new) The method of claim 48 wherein the nucleus is ablated by near-infrared light.
51. (new) The method of claim 50 wherein the near-infrared light has a wavelength in a range of about 700nm to about 1000nm.
52. (new) The method of claim 48 wherein the cell is an avian cell.
53. (new) The method of claim 48 wherein an oocyte comprises the cell.
54. (new) The method of claim 48 wherein an ovum comprises the cell.
55. (new) The method of claim 48 wherein a zygote comprises the cell.
56. (new) The method of claim 48 wherein a blastoderm comprises the cell.